

Application No.: 10/528,726
Amendment Dated: August 25, 2008
Reply to Office Action of: June 25, 2008

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Remarks/Arguments:

Claims 1-26 are pending and stand rejected.

By this Amendment, claims 1-4 and 10-12 are amended.

No new matter is added by the claim amendments. Support for the claim amendments can be found throughout the original specification and, for example, in the original specification at page 7, lines 8-17 and the fourth exemplary embodiment including page 25, line 14 to page 26, line 5.

Rejection of Claims 1-3, 7-9, 11, 13-14 and 18-19 under 35 U.S.C. §103(a)

In the Office Action, at item 4, claims 1-3, 7-9, 11, 13-14 and 18-19 are rejected under 35 U.S.C. §103(a) as being unpatentable over Hattori (JP 2003-102068) in view of Erickson et al. (U.S. Patent Publication No. 2002/0180588, hereafter referred to as Erickson).

Reconsideration is respectfully requested.

Claim 1

Claim 1 is directed to an electromagnetic wave reception device, and recites that:

... the duration of the intervals between the detection periods of the reception device, prior to the change of the duration, is longer than the predetermined transmission duration of the transmission device and the duration of the intervals between the detection periods of the reception device, subsequent to the change of the duration, is shorter than the predetermined transmission duration of the transmission device.

By changing the duration of the intervals between detection periods of the reception device to be shorter than the predetermined transmission duration of the transmission device, the input electromagnetic wave can be detected without fail. (See the original specification at page 7, lines 11-17.)

Hattori Reference

In the Office Action, at page 3, the Examiner acknowledges that "Hattori fails to disclose the timing change portions sets a frequency of the timing higher when input electromagnetic waves are detected a plurality of times for a predetermined period of time." Applicants respectfully agree with the Examiner's acknowledgment and submit that Hattori is silent regarding the detection period intervals feature (i.e., "... the duration of the intervals between the detection periods of the reception device, prior to the change of the duration, is longer than the predetermined transmission duration of the transmission device and the duration of the intervals between the detection periods of the reception device, subsequent to the change of the duration, is shorter than the predetermined transmission duration of the transmission device," as required by claim 1). Instead, Hattori discloses changing of an intermittent period for supplying power to a receive section 20 according to either the current time being within a predetermined time interval or the current position detected by an environmental condition detecting means being within a predetermined area. (See Hattori at paragraph [0011].) That is, Hattori does not disclose or suggest the use of "a predetermined transmission duration" or details regarding duration of the intermittent periods relative to the predetermined transmission duration.

Erickson Reference

Erickson discloses a document and file management system using radio frequency identification (RFID) tags. In Erickson, RFID tags are used to handle items such as files. The Erickson system permits a polling schedule to be set by the user. The system also permits the polling schedule to be altered either temporally or permanently. The alteration of the polling schedule could even be automated. For example sensors, such as optical sensors, placed in or near a storage area to detect activity in that area and the automated polling system could accordingly decrease, increase, or leave the polling schedule unchanged based on the activity level detected. (See Erickson at paragraph [0050].) In Erickson, it is clear that polling refers to interrogation of an RFID tag to obtain information about the RFID tag and the item with which it is associated. (See Erickson at paragraph [0030].) In Erickson, the polling schedule is changed by changing the interrogation schedule of RFID tags. Erickson, however, is silent regarding the use of "a predetermined transmission

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duration" or details regarding duration of the intervals between detection periods relative to the predetermined transmission duration. Thus, Erickson does not disclose or suggest the detection period intervals feature as required by claim 1.

Accordingly, it is submitted that claim 1 patentably distinguishes over Hattori in view of Erickson for at least the above-mentioned reasons.

Claim 11

Claim 11, which includes similar but not identical features to those of claim 1, is submitted to patentably distinguish over Hattori in view of Erickson for at least similar reasons to those of claim 1.

Claims 2-3, 7-9, 13-14 and 18-19

Claims 2-3, 7-9, 13-14 and 18-19, which include all of the limitations of claim 1, are submitted to patentably distinguish over Hattori in view of Erickson for at least the same reasons as claim 1.

Rejection of Claims 4-6, 15-17 and 20-22 under 35 U.S.C. §103(a)

In the Office Action, at item 5, claims 4-6, 15-17 and 20-22 are rejected under 35 U.S.C. §103(a) as being unpatentable over Hattori in view of Erickson in further view of Pombo et al. (US Patent No. 5,799,256, hereafter referred to as Pombo).

Reconsideration is respectfully requested.

Claims 4-6, 15-17 and 20-22, which include all of the limitations of claim 1 or claim 11, are submitted to patentably distinguish over Hattori in view of Erickson for at least the same reasons as claim 1 or claim 11.

Pombo Reference

The addition of Pombo does not overcome the deficiencies of Hattori and Erickson. This is because, Pombo does not disclose or suggest the detection period intervals feature, as required by claim 1 and similarly by claim 11. Instead, Pombo discloses a battery control 122 which operates as a switch for decoupling the battery

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from transmitter 110 and receiver 108 to selectively remove battery power from the transmitter 110 and the receiver 108. Pombo further discloses that predicting the user location allows the mobile station 104 to only search for control channels broadcast by base stations in the location where the user and the mobile station 104 will be present. Since not all control channels are broadcast by all base stations, if the mobile station 104 can determine which control channels are in use, the mobile station can reduce the time during which the receiver must be powered up, drawing power from the battery 120. The mobile station 104 maintains a historical record of past base station communications and associated times when a control channel from a particular base station was detected. The base station will search for a base station more frequently around the time and on a channel where the base station was previously found and less frequently otherwise. (See Pombo at Col. 5, lines 24-42.) Thus, Pombo discloses the use of historical data to search more or less frequently for a particular base station. Pombo, however, is silent, for example, regarding the use of "a predetermined transmission duration" or details regarding duration of the intervals between detection periods relative to predetermined transmission.

Accordingly, it is submitted that claims 4-6, 15-17 and 20-22, which include all of the limitations of claim 1 or claim 11, patentably distinguish over Hattori in view of Erickson in further view of Pombo for at least the same reasons as claim 1 or claim 11.

Rejection of Claim 10 under 35 U.S.C. §103(a)

In the Office Action, at item 6, claim 10 is rejected under 35 U.S.C. §103(a) as being unpatentable over Hattori in view of Flick (US Patent No. 7,005,960).

Reconsideration is respectfully requested.

Claim 10

Claim 10 is directed to an electromagnetic wave transmission device used with a reception device having detection periods at which the reception device detects input electromagnetic waves, a duration of the intervals between detection periods of the reception device having a first duration, and recites:

a transmission control portion for controlling the transmission portion so as to transmit a first electromagnetic wave for the predetermined, first time duration when the switch is turned on and a second electromagnetic wave for a second time duration when the switch is turned on at least twice within a predetermined period of time, the second time duration being longer in duration than the predetermined, first time duration such that the predetermined, first time duration is set to be shorter than the first duration of the intervals between detection periods of the reception device and the second time duration is set to be longer than the first duration of the intervals between detection periods of the reception device,

(emphasis added), hereafter referred to as the transmission duration feature.

By changing the duration of the transmission of the electromagnetic wave to be longer than the first duration of the intervals between detection periods, detection is ensured (See the original specification at the paragraph spanning pages 25 and 26.)

Hattori Reference

In the Office Action, at page 9, the Examiner acknowledges that "Hattori fails to disclose a transmission control portion for controlling so as to transmit a second electromagnetic wave for a longer period of time than a first electromagnetic wave when the switch is turned on at least twice within a predetermined period of time." Applicants respectfully agree with the Examiner's acknowledgment and submit that Hattori is also silent regarding the transmission duration feature, as required by claim 10.

Flick Reference

In the Office Action, the Examiner contends that Flick teaches "a handheld transmitter in a remote keyless entry system that transmits signals to unlock a driver's door on a vehicle when a door unlock button is first actuated by a user. If the user desires to unlock all the doors on the vehicle, the user just need [sic] to actuate the door unlock button a second time within a predetermined period of time of the first door unlock button actuation. (See Col. 1, lines 26-42)."

Although the Examiner's contentions may be correct, with regard to how the locking and unlocking action occurs based on the user pressing an unlock button, Flick

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is silent regarding transmission of "a first electromagnetic wave for the predetermined, first time duration when the switch is turned on and a second electromagnetic wave for a second time duration when the switch is turned on at least twice within a predetermined period of time, the second time duration being longer in duration than the predetermined, first time duration" and, furthermore, that "the predetermined, first time duration is set to be shorter than the first duration of the intervals between detection periods of the reception device and the second time duration is set to be longer than the first duration of the intervals between detection periods of the reception device," as required by claim 10. This is because, Flick is silent regarding details about setting the transmission durations relative to the duration of the intervals between detection periods. Thus, Flick does not disclose or suggest the transmission duration feature, as required by claim 10.

Accordingly, it is submitted that claim 10 patentably distinguishes over Hattori in view of Flick for at least the above-mentioned reasons.

Rejection of Claim 12 under 35 U.S.C. §103(a)

In the Office Action, at item 7, claim 12 is rejected under 35 U.S.C. §103(a) as being unpatentable over Hattori in view of Erickson in further view of Flick.

Reconsideration is respectfully requested.

Claim 12, which includes all of the limitations of claim 11, is submitted to patentably distinguish over Hattori in view of Erickson for at least the same reasons as claim 11.

Flick Reference

The addition of Flick does not overcome the deficiencies of Hattori in view of Erickson. This is because, Flick does not disclose or suggest the detection period intervals feature," as required by claim 11. That is, Flick does not contemplate changes to the duration of the intervals between detection periods at which input reception portion detects input electromagnetic waves.

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Accordingly, it is submitted that claim 12 patentably distinguishes over Hattori in view of Erickson in further view of Flick for at least the above-mentioned reasons.

Rejection of Claims 24 and 26 under 35 U.S.C. §103(a)

In the Office Action, at item 8, claims 24 and 26 are rejected under 35 U.S.C. §103(a) as being unpatentable over Hattori and Erickson in further view of Kehlstadt (US Patent Publication No. 2002/0093481).

Reconsideration is respectfully requested.

Claims 24 and 26, which include all of the limitations of claim 1 or claim 11, are submitted to patentably distinguish over Hattori in view of Erickson for at least the same reasons as claim 1 or claim 11.

Kehlstadt Reference

The addition of Kehlstadt does not overcome the deficiencies of Hattori and Erickson. This is because, Kehlstadt does not disclose or suggest the detection period intervals feature, as required by claim 1 or 11. Instead, Kehlstadt discloses capacitive detection circuits for detecting when a hand is touching or in close proximity to electrodes 14, 18 and/or 20. In Kehlstadt, the pointing device requests periodically capacitance measurements. If the output hand detector is asserted, the system resumes full power operation. If not, the system goes idle for a known duration after which a new capacitance measurement phase is requested. (See Kehlstadt at paragraphs [0022] and [0031].) That is, the detected electromagnetic waves correspond to the capacitance signal from the capacitance detection circuit. Kehlstadt, however, discloses the use of a periodic time basis, for example, every 500ms to detect such a capacitance signal. More particularly, Kehlstadt does not disclose or suggest the changing of the intervals between such detection periods. (See Kehlstadt at paragraph [0030].)

Accordingly, it is submitted that claims 24 and 26 patentably distinguish over Hattori and Erickson in view of Kehlstadt for at least the above-mentioned reasons.


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Conclusion

In view of the claim amendments and remarks, Applicants submit the application is in condition for allowance, which action is respectfully requested.

Respectfully submitted,



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